



Media Contact:
Devan Willemssen
Office: (410) 260-7539
Cell: (443) 694-3651

Martin O'Malley
Governor
Malcolm Woolf
Director

60 West Street, Suite 300
Annapolis, MD 21401
1-800-72-ENERGY
energy.maryland.gov

FOR IMMEDIATE RELEASE

MARYLAND OFFSHORE WIND ENERGY ACT OF 2012 FACTS & FIGURES

The Maryland Offshore Wind Energy Act of 2012 creates a mechanism to incentivize the development of up to 500 megawatts (MW) of offshore wind capacity, at least ten nautical miles off of Maryland's coast. A target project size of 310 MW would require the installation of between 50 and 100 wind turbines, depending on which turbines were deployed.

Development of offshore wind at this scale means:

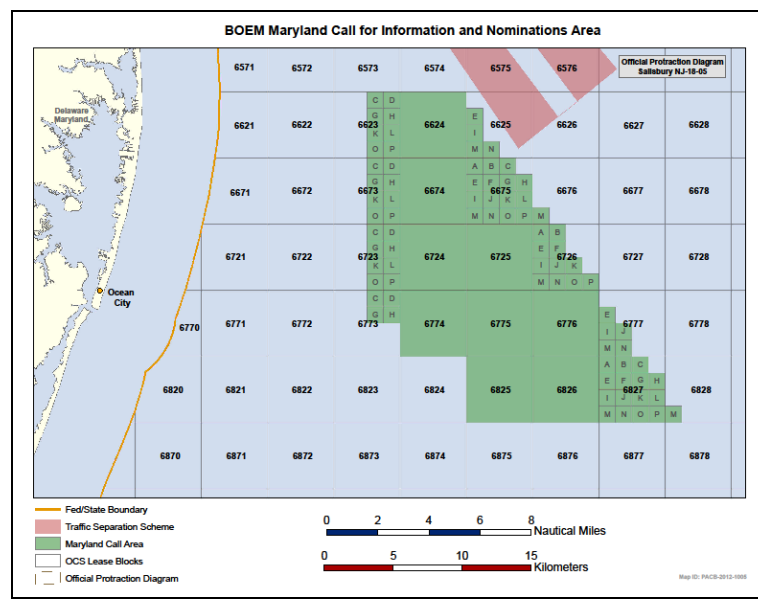
- ▲ **JOBS:** Based on a recent report from the U.S. Department of Energy's National Renewable Energy Laboratory, a 310 MW project would create **almost 1,300 manufacturing and construction jobs for 5 years** and an additional **250 ongoing supply and O&M jobs** thereafter.ⁱ Additional projects, both in Maryland and in the region, would lead to a significant new sustainable industry for Maryland workers.
- ▲ **HOMEGROWN ENERGY:** Maryland imports approximately 30% of the electricity we consume every year.ⁱⁱ This leads to significant transmission congestion and high line losses, which raises rates for Maryland ratepayers.ⁱⁱⁱ Maryland currently exports about 90% of its non-solar renewable dollars out of state.^{iv} A 310 MW project would supply enough electricity to power **half the homes on the Eastern Shore of Maryland, or more than a third of the homes in Baltimore City.**^v
- ▲ **A HEALTHIER ECONOMY:** Recent data from the National Academy of Sciences (NAS) suggest that health impacts caused by **burning fossil fuels for electricity cost the average Maryland household almost \$73 per month**, creating a drag on Maryland's economy.^{vi} A 310 MW project would **save Maryland's economy over \$27 million per year** in public health costs, according to the NAS report, and perhaps as much as \$100 million per year according to an independent analysis by Dr. Jonathan Levy of Boston University School of Public Health.^{vii}
- ▲ **PRICE STABILITY:** During the period from 1999 to 2009, energy costs to Maryland ratepayers roughly doubled.^{viii} While offshore wind capital costs are high compared to traditional fossil fuel generation, the **fuel cost is zero**, rendering the operational costs highly competitive. Early investments in land-based wind have helped drive down costs to the point that land-based wind energy is often cheaper than fossil fuels, and in many parts of the country wind energy is keeping electricity prices down for ratepayers. Similar investments in offshore wind will help make Maryland's electricity supply more environmentally and economically sustainable.
- ▲ **CLEAN, RENEWABLE POWER:** A 310 MW offshore wind project will reduce emissions of the greenhouse gas, CO₂, by 586,000 tons per year and promise improved public health outcomes,

cleaner air and cleaner water.^{ix} The Maryland Renewable Portfolio Standard (RPS) requires that Maryland get 20% of its electricity from renewable sources by 2022.

- ▲ **SIGNIFICANT ECONOMIC IMPACT:** Based on a regional employment model analysis by the Maryland Department of Business & Economic Development, the total economic impact of offshore wind over five years is almost \$2 billion, with \$8.7 million in additional state tax revenues. This figure includes direct and indirect effects.^x

Background on Maryland's offshore wind resources:

- ▲ Areas of the Outer Continental Shelf off the coast of Maryland are ideal for offshore wind energy development. Maryland's coast lies along the "Mid-Atlantic Bight". The U.S. Department of Energy classifies the wind resource here as "outstanding".^{xi} The shelf here slopes gradually and contains vast areas below 30 meters in depth.^{xii} This makes it ideal for deployment of turbine foundations.
- ▲ While there are no currently operating offshore wind farms in North America, commercial scale facilities have been operating in Europe since 1991. An estimated 3,160 MW of capacity are currently operating worldwide, with another 15,000 MW expected to be deployed by 2014.^{xiii}
- ▲ On February 2, 2012, the U.S. Department of Interior cleared the Maryland Wind Energy Area for leasing. This 80,000 acre area of Outer Continental Shelf can ultimately support up to 1,000 MW of wind energy.



Maryland's "Wind Energy Area"

Maryland's progress to date:

- ▲ Maryland agencies began planning for offshore wind development in 2009. The Maryland Energy Administration (MEA) partnered with the Department of Natural Resources (DNR) and other State agencies, the Nature Conservancy, the University of Maryland's Center for Integrative Environmental Research (CIER) and AWS TruePower Solutions to develop the *Maryland Coastal Atlas* – an online interactive tool for advanced marine spatial planning. This tool helped State agencies, offshore wind developers, and affected stakeholders to determine areas of potential conflict due to ecological, navigational, military, fisheries and other uses. The *Coastal Atlas* is a publicly available tool and can be found here: <http://www.dnr.state.md.us/ccp/coastalatlas/ocean.asp>.

- ▲ At the request of Governor O'Malley in 2010, DOI's Bureau of Ocean Energy Management (BOEM) created the Maryland State/Federal Offshore Wind Task Force. The Task Force, comprised of officials from state and federal agencies as well as elected officials from Maryland's coastal communities, developed siting recommendations for offshore wind deployment.
- ▲ Eight offshore wind developers have already expressed interest in developing projects in Maryland's Wind Energy Area. The Call for Interest and Nominations in the Area, issued by BOEM on February 2, 2012 is expected to demonstrate even greater developer interest in Maryland.
- ▲ Maryland continues to work with regional and federal partners, including the Obama Administration and the U.S. Department of the Navy, to develop additional procurement strategies to leverage State efforts. This type of partnership promises additional economic development benefits.

ⁱ US Department of Energy (US DOE). National Renewable Energy Laboratory (NREL). Musial, W., Ram, B. (2010). *Large-Scale Offshore Wind Power in the United States: Assessment of Opportunities and Barriers* (September 2010. NREL/TP-500-40745)

<http://www.nrel.gov/docs/fy10osti/40745.pdf> retrieved 1/13/2011

ⁱⁱ Maryland Public Service Commission (MD PSC), *Ten-Year Plan (2009 – 2018) of Electric Companies in Maryland*. 9 <http://webapp.psc.state.md.us/Intranet/Reports/2009-2018%20Ten%20Year%20Plan.pdf>, retrieved visited 1/13/2011.

ⁱⁱⁱ *Id.*

^{iv} PJM Generation Attributes Tracking System 2010 Data

^v Average MD home use = 12.62MWh/yr. US DOE. Energy Information Administration (EIA). *State Electric Profiles, Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1990 Through 2008*. http://www.eia.doe.gov/cneaf/electricity/st_profiles/maryland.html retrieved Jan. 14, 2011

Total population of Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester counties = 169,585. US Census Bureau 2010 projected. *Maryland at a Glance*. Maryland State Archives. <http://www.msa.md.gov/msa/mdmanual/01glance/html/pop.html> retrieved Jan. 14, 2011

Persons per Maryland home = 2.61 US Census Bureau, *State and County Quick Facts*. 2000

<http://quickfacts.census.gov/qfd/states/24000.html>, retrieved 1/14/2011

Total Eastern Shore of Maryland Household Energy Consumption = 2,173,089 MWh/year

Total Baltimore City Household Energy Consumption = 3,084,517 MWh/year

Offshore Wind Annual capacity Factor = 39.3% MD PSC. *Analysis of Options for Maryland's Energy Future, Levitan Interim Report*, Kaye Scholer, LLP, Levitan & Associates, Inc and SEMCAS Consulting Associates. 2007.

http://webapp.psc.state.md.us/Intranet/Reports/Levitan%20%20Associates_Analysis%20of%20Options%20for%20Maryland%27s%20Energy%20Future_11.30.07.pdf retrieved Jan. 14, 2011

310MW Offshore Wind = 1,067,230.80 MWh/year

^{vi} National Academy of Science, National Research Council's Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use. (2009) National pollution health impact data weighted for Maryland fuel mix. 2007 dollars cited in the report have been updated to 2012 dollars.

^{vii} Testimony of Professor Jonathan Levy, Professor of Environmental Health, Department of Environmental Health, Boston University School of Public Health, regarding Senate Bill 237, February 13, 2012,

^{viii} Costs over the period from 1999 to 2009 went from 7.04 to 14.22. US DOE. EIA. *Electric Power Annual 2009 - Average Price by State by Provider* (EIA-861).

http://www.eia.doe.gov/cneaf/electricity/epa/epa_sprdshts.html retrieved Jan. 13, 2011

^{ix} DOE, EIA. 2009. "U.S. Carbon Dioxide Emissions in 2009: A Retrospective Review".

<http://www.eia.doe.gov/oiaf/environment/emissions/carbon/> accessed Jan 31, 2011

^x Department of Business and Economic Development analysis (January 14, 2011). Assumptions: 1,283 manufacturing/construction/assembly jobs per year for 5 years; 2013-2017. 248 O&M jobs per year; 2017-2037

^{xi} US DOE. NREL. *United States Wind Resource Map* (NREL 06-May-2009 1.1.9)
http://www.windpoweringamerica.gov/pdfs/wind_maps/us_windmap.pdf last visited 1/13/2011

^{xii} Maryland Department of Natural Resources *Maryland Coastal Atlas*,
<http://www.dnr.state.md.us/ccp/coastalatlas/ocean.asp>, retrieved Jan. 13, 2011

^{xiii} BTM Consult, APS. *Danske virksomheder har en meget stærk position på leverancer til Offshore Vindkraft anlæg*. Press Release. November 22, 2010.
http://www.btm.dk/public/Press_DK_Offshore_2010.pdf retrieved Jan 19.